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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,138	04/08/2005	Werner Jaeger	127-75824	1950
23643 7590 05/16/2007 BARNES & THORNBURG LLP 11 SOUTH MERIDIAN INDIANAPOLIS, IN 46204			EXAMINER MULLIS, JEFFREY C	
			ART UNIT 1711	PAPER NUMBER
			MAIL DATE 05/16/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/509,138

Applicant(s)

JAEGER ET AL.

Examiner

Jeffrey C. Mullis

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8-11-05, 4-8-05</u> | 6) <input type="checkbox"/> Other: _____  |

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The symbol in the upper right hand corner of the "X" in the structure of claims 1 and 9 appears to be a dot rather than a negative charge (-) as is clearly required while the style of the X's in the structure and rest of the independent claims differ. Correction is required.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "suitable" renders the claims unclear in that it is subjective as to what conditions are to be considered suitable.

The term "molar mass" is unclear since molar masses in macromolecular materials exist as a distribution which varies depending on the type of distribution i.e. weight or number average molecular weight and as the type of distribution is not stated at least claim 2 is unclear.

Viscosities vary depending on solvent and concentration and since applicants claims reciting viscosities do not recite such they are unclear.

The term "methosulfate" is not art recognized and therefore unclear.

"(T)he inverse emulsion polymerization" of claim 16 lacks antecedent basis in any preceding claim.

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 17 and 18 are rejected under 35 U.S.C. 101 because these claims are drawn to a use.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neff et al. (US 5882525) in view of (US 4713431, admission at page 1, lines 29-33 of the specification).

Patentees disclose a polymer which may contain applicants monomers "I" at column 4, lines 47-58 and 4-80 parts per million of a "branching agent" (see the paragraph bridging columns 3 and 4) such as PEGDMA of molecular weight of 600 (see experiments 10-11 in column 9). The materials may be used as flocculants agents for effluent in the treatment of sludges at column 1, lines 10-39.

There are no examples of a material produced by using patentees diallyl ammonium compounds in combination with applicants amounts of PEG dimethacrylate although patentees disclose that applicants amounts of branching agent which include PEGDMA may be used in amounts encompassing applicants' in combination with monomers including applicants. Hence it would have been obvious to a practitioner having an ordinary skill in the art at the time of the invention to select applicants components in applicants amounts from the disclosure of the patent in the expectation of adequate results absent any showing of surprising or unexpected results.

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Patentees do not appear to disclose inverse emulsion polymerization as required by certain dependent claims. However page 1, lines 29-33 of applicants specification discloses that the advantage of inverse emulsion polymerization is known in the art for increasing molecular weights of flocculating polymers. Hence use of inverse emulsion polymerization would have been obvious to a practitioner having an ordinary skill in the art at the time of the invention to confer the advantage of increased molecular weight absent any showing of surprising or unexpected results.

Any inquiry concerning this communication should be directed to Jeffrey C. Mullis  
M-F 9-5pm at telephone number 571 272 1075.

Jeffrey C. Mullis  
Primary Examiner  
Art Unit 1711

JCM

5-7-07

JEFFREY C. MULLIS  
PRIMARY EXAMINER  
GROUP 1200

1711  
